

Appl. No. 10/043,390
Amendment and/or Reply
to the Office Action of 19 April 2005

Page 7 of 11

2. REMARKS / DISCUSSION OF ISSUES

Claims 1-120 are pending in the application. Claims 1, 10 and 13 are in independent form.

I. Rejection under 35 U.S.C. § 102(a)

Claims 1-20 were rejected under 35 U.S.C. § 102(a) as being anticipated by *Tsang, et al.* ("A Review on Attacks, Problems and Weaknesses of Digital Watermarking in the Pixel Reallocation Attack" SPIE Vol. 4313 (2001)). For at least the reasons set forth above, it is respectfully submitted that these rejections are improper and should be withdrawn.

A proper rejection under 35 U.S.C. § 102(a) requires that all of the claimed elements be found in the applied art. If a single claimed element is not found in the applied art, a prima facie case of anticipation cannot be properly established.

A. *Tsang, et al.* Lacks the Disclosure of at least One Feature of Independent Claims 1, 10 and 13

Claim 1 is drawn to a method of attacking a screening algorithm, and features:
"*...transforming content to manipulate a watermark within the content; [and] subjecting the content to a screening algorithm...*"

Claim 10 is drawn to an apparatus for attacking a screening algorithm and features:

"*...a processing device having a processor coupled to a memory, the processing device being operative to transform content to be downloaded to manipulate a watermark embedded in the content, wherein the content is subjected to a screening algorithm...*"

Claim 13 is drawn to an article of manufacture comprising a machine readable

Atty. Docket No. US 010511

BEST AVAILABLE COPY

Appl. No. 10/043,390
Amendment and/or Reply
to the Office Action of 19 April 2005

Page 8 of 11

medium containing one of more programs, which when executed implement the steps of:

*"transforming content to manipulate a watermark within the content; [and]
subjecting the content to a screening algorithm..."*

In an example embodiment, content from the internet 10 is forwarded to a first transformation device 12-1, wherein the content is manipulated to the extent that a watermark embedded in the content will not be detected by the screening device 14. (Kindly refer to Fig. 1A and its supporting description in the filed application.)

In another example embodiment a method of attacking a screening algorithm is described. An embodiment of the method of attacking a screening algorithm is to pass illicit through a transformation device (e.g., device 12-1). Next the content is subject to a screening algorithm. To determine whether the content should be admitted to a secure domain, the screening algorithm screens the content for a watermark. If the watermark is detected, the content is rejected. If not, the content is admitted to the secure domain. (Kindly refer to Fig. 3 and its supporting description in the filed application.)

In either the method, apparatus or article of manufacture of the example embodiments, the screening process and apparatus is subject to testing and scrutiny to determine if illicit material passes the screening. Naturally, this indicates a failure and shortcoming of the screening apparatus, thereby providing opportunities to improve the screening so that illicit copying of right-protected works can be curbed more efficiently.

It is respectfully submitted that the reference to *Tsang, et al.* lacks the disclosure of at least the features of claims 1, 10 and 13 referenced above. *Tsang, et al.* provides a sampling of the various types of watermarking techniques. Moreover, *Tsang, et al.* is drawn to a new image watermark attack called "Pixel Reallocation Attack." Notably, the watermarks and attacks on video having such watermarks.

At page 388, *Tsang, et al.* describes 'Attacks on Copy Control Applications.' In this section, which is heavily relied on by the Examiner, watermarks to mark the

Atty. Docket No. US 010511

BEST AVAILABLE COPY

Appl. No. 10/043,390
Amendment and/or Reply
to the Office Action of 19 April 2005

Page 9 of 11

media as 'copy once' and 'no-copy allowed' are described. A compliant recorder, adapted to detect a watermark, is instructed by a watermark in a video not to record a video. The compliant recorder will record the copyrighted video. Attackers can scramble the video before recording it to the recorder, such that the recorder is not able to detect the watermark and regard the video as non-copyrighted video. Thus, the reference as relied upon by the Examiner discloses the scrambling of video so that a watermark is not detected.

As noted previously, a proper *prima facie* case of anticipation requires that all of the features of a claim must be provided in the applied reference. However, the reference lacks at least the disclosure of ***subjecting the content to a screening algorithm*** as specifically recited in the filed application.

In the rejection of claim 1, the Examiner attempts to equate the 'recorder' of *Tsang, et al.* with the screening algorithm. In the rejection of claims 10 and 13, the Examiner attempts to equate 'the detector' with the screening algorithm.

The reference to *Tsang, et al.* discloses a recorder is that not able to detect the watermark information. Thus, the recorder may be able to pass illicit content. However, there is no mention, let alone the requisite teaching of a screening algorithm, or the subjecting of the content to such an algorithm.

Moreover, the reference does disclose that the recorder is not able to detect the watermark information and regard it as non-copyrighted video. However, a detector is not disclosed. Nonetheless, even if a detector were disclosed, a detector is not a screening algorithm as specifically recited in claims 1, 10 and 13.

For at least the reasons set forth above, it is respectfully submitted that the reference to *Tsang, et al.* lacks at least one of the features of claims 1, 10 and 13. As a result, a proper *prima facie* case of anticipation based on *Tsang, et al.* has not been made and the rejection of claims 1, 10 and 13 is improper and should be withdrawn. Therefore, claims 1, 10 and 13 and the claims that depend therefrom are patentable over the applied art. Allowance is earnestly solicited.

Atty. Docket No. US 010511

BEST AVAILABLE COPY

Appl. No. 10/043,390
Amendment and/or Reply
to the Office Action of 19 April 2005

Page 10 of 11

B. *Tsang, et al.* Lacks at least the Disclosure of the SDMI Screening Algorithm

The beseechment of allowance of claim 5 notwithstanding, Applicants respectfully submit that the rejection of claim 5 also improper for at least the following reasons.

Claim 5 depends from claim 1, and includes the feature that the screening algorithm is a Secure Digital Music Initiative (SDMI) screening algorithm. The reference to *Tsang, et al.* is drawn to a watermark called 'Pixel Reallocation Attack.' The term pixel stands for picture element and the disclosure of *Tsang, et al.* relates to watermarks on video content. Thus, the reference does not and would not relate to screening music content. The SDMI screening algorithm screens music content. The mere mention of SDMI in the context of ensuring the survival of watermarks in the Introduction of *Tsang, et al.* is not a disclosure of an SDMI screening algorithm as recited in claim 5.

For at least the reasons set forth above, it is respectfully submitted that the reference to *Tsang, et al.* lacks at least one of the features of claim 5. As a result, a proper *prima facie* case of anticipation based on *Tsang, et al.* has not been made and the rejection of claim 5 is improper and should be withdrawn. Accordingly, it is respectfully submitted that claim 5 is patentable over the applied art. Allowance is earnestly solicited.

III. Conclusion

In view of the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies to charge payment or credit any overpayment to Deposit Account

Atty. Docket No. US 010511

BEST AVAILABLE COPY

Appl. No. 10/043,390
Amendment and/or Reply
to the Office Action of 19 April 2005

Page 11 of 11

Number 50-0238 for any additional fees, including, but not limited to, the fees under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17.

Respectfully submitted,



William S. Francos, Esq.
Reg. 38,456

July 19, 2005
Volentine, Francos & Whitt, PLLC
Treeview Corporate Center
Two Meridian Boulevard
Wyomissing, PA 19608

(610) 375-3513

Atty. Docket No. US 010511

BEST AVAILABLE COPY